(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 22 January 2004 (22.01.2004)

PCT

(10) International Publication Number WO 2004/007318 A3

(51) International Patent Classification7:

F26B 21/06

(21) International Application Number:

PCT/US2003/021973

(22) International Filing Date: 15 July 2003 (15.07.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/396,536 60/428,526

15 July 2002 (15.07.2002) US 22 November 2002 (22.11.2002) US

(71) Applicant (for all designated States except US): AVIZA TECHNOLOGY, INC. [US/US]; 440 Kings Village Road, Scotts Valley, CA 95066 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): KOWALSKI, Jeffery, Edwards [US/US]; 101 Grand Avenue, Capitola, CA 95010 (US).

(74) Agents: SWIATEK, Maria, S. et al.; Dorsey & Whitney LLP, Suite 3400, 4 Embarcadero Center, San Francisco, CA 94111 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

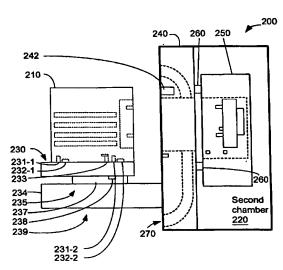
Published:

with international search report

(88) Date of publication of the international search report: 5 August 2004

[Continued on next page]

(54) Title: LOADPORT APPARATUS AND METHOD FOR USE THEREOF



(57) Abstract: A loadport apparatus for conditioning the interior of a FOUP having a FOUP door. The apparatus includes platform, a housing, an loadport door, a loadport door seal and a conditioning system. The FOUP platform receives the FOUP. The housing includes an opening to a second chamber. The housing is configured for sealably engaging the FOUP. The loadport door includes a FOUP door access mechanism for opening the FOUP. The loadport door is movable between an open position and a closed position. The loadport door seal selectively seals the opening from the second chamber when the loadport door is in the closed position. The conditioning system communications with the opening for conditioning a mini-environment chamber defined by the loadport door, the seal, the opening, and an interior of the FOUP when the loadport door is in the closed position, the loadport door seal is sealed, and the FOUP door is open. A method is also disclosed.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 22 January 2004 (22.01.2004)

PCT

(10) International Publication Number WO 2004/007318 A2

(51) International Patent Classification7:

B65G

(21) International Application Number:

PCT/US2003/021973

(22) International Filing Date: 15 July 2003 (15.07.2003)

(25) Filing Language: **English**

(26) Publication Language: English

(30) Priority Data:

60/396,536 15 July 2002 (15.07.2002) US 60/428,526 22 November 2002 (22.11.2002)

- (71) Applicant (for all designated States except US): ASML US, INC. [US/US]; 440 Kings Village Road, Scotts Valley, CA 95066 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): KOWALSKI, Jeffery, Edwards [US/US]; 101 Grand Avenue, Capitola, CA 95010 (US).

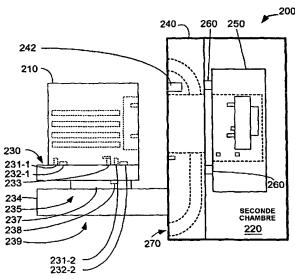
- (74) Agents: SWIATEK, Maria, S. et al.; Dorsey & Whitney LLP, Suite 3400, 4 Embarcadero Center, San Francisco, CA 94111 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: LOADPORT APPARATUS AND METHOD FOR USE THEREOF



(57) Abstract: A loadport apparatus for conditioning the interior of a FOUP having a FOUP door. The apparatus includes platform, a housing, an loadport door, a loadport door seal and a conditioning system. The FOUP platform receives the FOUP. The housing includes an opening to a second chamber. The housing is configured for sealably engaging the FOUP. The loadport door includes a FOUP door access mechanism for opening the FOUP. The loadport door is movable between an open position and a closed position. The loadport door seal selectively seals the opening from the second chamber when the loadport door is in the closed position. The conditioning system communications with the opening for conditioning a mini-environment chamber defined by the loadport door, the seal, the opening, and an interior of the FOUP when the loadport door is in the closed position, the loadport door seal is sealed, and the FOUP door is open. A method is also disclosed.



WO 2004/007318 A2



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.